

Int. Appl. No. : PCT/GB2004/003386
Int. Filing Date : August 5, 2004

AMENDMENTS TO THE CLAIMS

1. **(Original)** A compound for vaccination of an animal comprising (i) a moiety which selectively binds to a dendritic cell in the animal but which moiety does not naturally occur in the animal and (ii) an antigen.

2. **(Currently amended)** A The compound according to Claim 1 wherein the moiety selectively binds to a pattern recognition receptor on a dendritic cell.

3. **(Currently amended)** A The compound according to Claim 2 wherein the pattern recognition receptor is DC-SIGN.

4. **(Currently amended)** A The compound according to Claim ~~Claims~~ 1 ~~or~~ 2 wherein the moiety which selectively binds is a protein.

5. **(Currently amended)** A The compound according to Claim 4 wherein the moiety which selectively binds is any one of HIV gp120, the LAM protein of *Mycobacterium tuberculosis* or a glycoprotein of Ebola virus, or parts thereof.

6. **(Original)** A compound for vaccination of an animal comprising (i) a moiety selected from any of HIV gp120, the LAM protein of *Mycobacterium tuberculosis* or a glycoprotein of Ebola virus, or parts thereof, and (ii) an antigen.

7. **(Currently amended)** A The compound according to Claim 1 ~~any one of the preceding claims~~ wherein the antigen is a polypeptide.

8. **(Currently amended)** A The compound according to Claim 1 ~~any one of the preceding claims~~ wherein the antigen is a molecule associated with a disease of the animal or part or variant of such a molecule.

9. **(Currently amended)** A The compound according to Claim 8 ~~any one of the preceding claims~~ wherein the antigen comprises two or more molecules associated with a disease of the animal or parts or variants of such molecules.

10. **(Currently amended)** A The compound according to Claim ~~Claims~~ 8 ~~or~~ 9 wherein the antigen is an antigenic component of a pathogen or a tumour or an antigenic part or variant of such a component.

11. **(Currently amended)** A The compound according to Claim 10 wherein the pathogen is any of a bacterium, virus, fungus, protozoa or helminth.

Int. Appl. No. : PCT/GB2004/003386
Int. Filing Date : August 5, 2004

12. **(Currently amended)** A The compound according to Claim 11 wherein the antigen is an antigenic component of a pathogen selected from pathogens associated with OIE list A diseases, or a part or variant of such a component.

13. **(Currently amended)** A The compound according to Claim 1 ~~any one of the preceding claims~~ wherein the moiety and the antigen are covalently linked.

14. **(Currently amended)** A The compound according to Claim 1 ~~any one of the preceding claims~~ wherein the moiety which selectively binds, and the antigen, each comprise a polypeptide and both are present in the same polypeptide chain.

15. **(Currently amended)** A nucleic acid molecule encoding the a compound according to Claim 14.

16. **(Currently amended)** An expression vector comprising the a nucleic acid molecule according to Claim 15.

17. **(Currently amended)** A host cell comprising the a nucleic acid molecule according to Claim 15 or the an expression vector according to Claim 16.

18. **(Currently amended)** A vaccine comprising the a compound according to Claim ~~any one of Claims 1 to 14~~ or the a nucleic acid molecule according to Claim 15.

19. **(Currently amended)** A The vaccine according to Claim 18 further comprising an adjuvant.

20. **(Cancelled)**

21. **(Currently amended)** A pharmaceutical composition comprising a compound according to Claim ~~any one of Claims 1 to 14~~ or a nucleic acid molecule according to Claim 15 and a pharmaceutically acceptable carrier.

22. **(Currently amended)** A method of immunising an animal against a disease comprising the to step of administering to the animal a compound according to Claim 1 ~~any one of Claims 1 to 14~~ or a nucleic acid molecule according to Claim 15.

23. **(Currently amended)** A method of combating a disease in an animal comprising the step of administering to the animal a compound according to Claim ~~any one of Claims 1 to 14~~ or a nucleic acid molecule according to Claim 15.

24. **(Original)** The method according to any one of Claims 22 or 23 wherein the disease is one caused by a pathogen.

Int. Appl. No. : **PCT/GB2004/003386**
Int. Filing Date : **August 5, 2004**

25. **(Original)** The method according to Claim 24 wherein the pathogen is any of a bacterium, virus, fungus, protozoa or helminth.

26. **(Original)** The method according to Claim 25 wherein the pathogen is one associated with OIE List A diseases.

27. **(Original)** The method according to any one of Claim 22 or 23 wherein the animal is a mammal.

28. **(Currently amended)** The method according to Claim ~~any one of Claims 22 to 27~~ wherein the animal is a companion animal or farm animal.

29. **(Currently amended)** The method according to Claim ~~any one of Claims 27 or 28~~ wherein the animal is a cow, sheep, horse, pig, goat, dog, cat or rabbit.

30.-37. **(Cancelled)**

38. **(Original)** A method of making a compound according to Claim 1 or 6 comprising linking the said moiety and the said antigen.

39. **(Currently amended)** A method of making a compound comprising (i) a moiety which selectively binds to a dendritic cell in the animal but which moiety does not naturally occur in the animal and (ii) an antigen, wherein the moiety which selectively binds, and the antigen, each comprise a polypeptide and both are present in the same polypeptide chain ~~according to Claim 14 which comprises a polypeptide~~, said method comprising (i) culturing host cell according to Claim 17 which expresses said polypeptide and (ii) isolating said polypeptide.

40. **(Original)** A method of making a nucleic acid according to Claim 15 comprising linking a nucleic acid molecule which encodes a moiety which selectively binds to a dendritic cell and a nucleic acid molecule which encodes an antigen.

41. **(Original)** A nucleic acid molecule comprising (i) a portion which encodes a moiety which selectively binds to a dendritic cell and (ii) an insertion point for insertion of a polynucleotide encoding an antigen wherein when said polynucleotide is inserted into said insertion point, said nucleic acid molecule encodes a compound according to Claim 14.

42. **(Original)** The nucleic acid according to Claim 41 wherein said nucleic acid encodes a moiety which selectively binds to a pattern recognition receptor on a dendritic cell.

43. **(Original)** The nucleic acid according to Claim 42 wherein the recognition receptor is DC-SIGN.

Int. Appl. No. : PCT/GB2004/003386
Int. Filing Date : August 5, 2004

44. **(Currently amended)** The nucleic acid according to Claim ~~Claims 41-42~~ wherein the moiety which selectively binds is any one of HIV gpl20, the LAM protein of *Mycobacterium tuberculosis* or a glycoprotein of Ebola virus.

45. **(Original)** A method of determining whether an animal has been administered a compound according to Claim 1, the method comprising determining whether the animal has had an immune response to said moiety which selectively binds to a dendritic cell.

46. **(Original)** A method according to Claim 45 comprising the further step of determining whether the animal has had an immune response to the antigen present in said compound.

47. **(Currently amended)** A kit of parts comprising (i) a compound according to Claim ~~any one of Claims 1-14~~ or a nucleic acid molecule according to Claim 15 and (ii) means for detecting an immune response to the moiety present in said compound which selectively binds to a dendritic cell, and/or (iii) means for detecting an immune response to the antigen present in said compound.

48. **(Original)** A kit of parts according to Claim 47 wherein if present part (ii) comprises all, or a portion of, said moiety which binds to an antibody raised against said moiety and part (iii) comprises all, or a portion, of said antigen so which binds to an antibody raised against said antigen.

49. **(Original)** A kit of parts comprising (i) means for detecting an immune response to an animal disease antigen and (ii) means for detecting an immune response to a moiety which selectively binds to a dendritic cell.

50. **(Currently amended)** A The kit of parts according to Claim ~~any one of Claims 47-49~~ wherein the means for detecting an immune response is an ELISA.

51. **(Cancelled)**